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A BASIC PRINCIPLE IN CHINESE MEDICINE

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FEELING THE PULSE IN CHINESE TRADITIONAL MEDICINE

- COMMUNIST CHINA -

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## FOREWORD

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## A BASIC PRINCIPLE IN CHINESE MEDICINE

[Following is a translation of an article by the Research Institute of Chinese Traditional Medicine in Ch'ing-chu Chien-kuo Shih-chou-nien I-hsueh K'o-hsueh Ch'eng-chiu Lun-wen Chi, Volume I, pp. 305-311, Peiping, December 1959.]

### I

"Pien-cheng Shih-chih" is a basic principle in Chinese traditional clinical treatment. Its general spirit and content is to distinguish between symptoms, analyse the causes of disease, its nature and course of development, taking into consideration local climate, seasonal climate, and age of the patient, sex, and employment in order to determine the nature of the disease, and begin the treatment on these overall features.

The basic principles of the "pien-cheng shih-chih" have their origin in one of our oldest medical texts, "The Yellow Emperor's Canon of Internal Medicine (Huang-ti Nei-ching) (403-221 B.C.), in which is recorded considerable basic medical knowledge concerning human physiology, pathology, and the concepts of pathology. Finally, the principle of individual treatment according to person, time, and place was brought forward. In the Eastern Han, Chang Chung-ching (張仲景) inherited this theoretical basis, and taking the experience of that period together with his own clinical practice, wrote the Shang-han Tsa-ping-lun (196-204 A.D.) - the presently existing Shang-han Lun and Chin-kuei Yao-yueh in which he advocated the classification and differential treatment of diseases on the basis of their clinical symptoms, pulse, and course of their development. In this was he concretely expanded the theory and technique of the "pien-cheng shih-chih" so that it has become the model for clinical treatment in later generations.

Since the establishment of the Chinese Peoples Republic, under the leadership of the Party and with the cooperation of Chinese and Western medicine, Chinese medicine has made many new accomplishments in clinical treatment in recent years. For example, treatment has become highly effective for Japanese B encephalitis, chistosomiasis, infectious hepatitis, and pulmonary tuberculosis. Although Chinese medicine, owing to the limitations of past history, did not have a sufficiently concrete knowledge of the disease causing organisms (bacteria, viruses), it did have methods for discriminating and explaining the symptoms that arose

from them. The object of "pien-cheng shih-chih" is to use drugs, acupuncture-moxibustion, and massage to bring about a transformation from a pathological condition to a normal physiological condition. The treatment is determined after distinguishing the symptoms and diagnosing their particular features in combination with the individual peculiarities of the patient's reaction to the disease. In this process we remove or kill the causative organisms and their effects, repair the damage done by the disease, and bring about a recovery of physiological balance in the body, thus attaining the objective of curing the disease. Therefore, in many diseases, Chinese medicine relies not on "special drugs (t'o-hsiao-yao), but on "pien-cheng shih-chih." The effectiveness of Chinese medicine in many diseases is largely due to the successful clinical use of the "pien-cheng shih-chih."

## II

Our traditional medicine discovered early the interrelationships of the internal organs and systems, and the relationships of mutual regulation, antagonism and cooperation through their functions. It also discovered the environmental adaptive capacities of the body from such physiological phenomena as shivering in the cold and sweating in the heat. The physiological concepts of the mutual regulations of external and internal environment were formulated from these discoveries. It was recognized that if the physiological functions of the body could continually maintain their balance with each other and also could adapt to the changes in the environment, then a healthy state would exist. If the physiological functions lose their balance, there is internal disorganization, and if the body cannot adapt to the external environment, then there is no way of avoiding illness and death. It was on this basis that the basic concepts of the studies of disease origin and cause developed. It is recognized that the origin and development of all disease is a struggle between the body's physiological function and the disease-causing factor and its effects -- a process destroying the relationship between external and internal. It is also a reaction in which the body's physiological functions remove or destroy the disease-causing factors.

In Chinese medicine the physiological function of the body is called "cheng-ch'i" (regulation of ch'i) (in ancient times it was called "cheng-ch'i"). The causes of disease were classified either as internal factors or external factors. Internal factors were the seven emotions (joy, anger, sincerity, thought, sadness, fear, alarm), food and drink, work and fatigue, and excess sexual activity. External factors were the six excesses (wind, cold, heat, dampness, dryness, and fire), and injuries from falling. If the body's internal mechanism can regulate itself and adapt to the external environment, even though the causes of sickness are present, no harm will come. If, however, the body's physiological functions are deficient, and it can not adapt to the external, then the "sickness evil" can avail itself of these deficiencies and gain

entrance, thus bringing on sickness. However, even if the internal mechanisms are in order and it can adapt to the external environment, a state of sickness can still be produced if the causes of disease are present in great numbers. The analysis and explanation of the pathological and physiological activity of the body on the basis of clinical symptoms and the use of various measures to regulate this activity in order to overcome the disease causes, and finally defeat them, recover inner balance, and obtain a cure is what makes up the basic viewpoint of the "pien-cheng shih-chih" which has been formed on the basis of the physiological and etiologial concepts related above.

Common disease-causing factors can produce the same common symptoms of more serious diseases. However, owing to different states of the body and such other factors as season and geographical region, the same disease may have a dissimilar course of development for various people. In the course of a disease, there can be different symptoms at different stages, or in other words, although the disease is the same, the "evidence[Note: Hereafter this term will be translated as 'symptoms']" (a disease is manifested in external symptoms, which are evidence for diagnostics) which it presents is dissimilar. As the patient's pathologico-physiological reaction may be dissimilar, the goal of "pien-cheng shih-chih" is the pathologico-physiological reaction. Therefore, treatment in similar diseases is based on the differences in "symptoms." For example, in Type B encephalitis, the measures used for treatment will depend on whether the climate tends to be damp or hot, on the strength or weakness of the patient's constitution, and on his age. Again, in schistosomiasis the treatment will differ depending on whether the "symptoms" are those of early or late infection. If the pathologico-physiological reaction is similar, then similar treatment may be selected. For example, Type B encephalitis and cerebro-meningitis are two different diseases, but in both symptoms of "internal heat in excess" such as coma, delirium, and convulsions appear. The treatment methods of "purifying heat and opening the intellect" and "quiet the liver and extinguish the wind" may be used. In this it must be pointed out that the object of the "pien-cheng shih-chih" is the entire body and not the specific symptoms. Although "pien-cheng" takes these symptoms as its basis, its object is not the simple elimination of the symptoms. Therefore, "pien-cheng shih-chih" cannot be confused with ordinary symptomatic treatment.

### III

Definite types of "symptoms" reflect definite pathologico-physiological activity, and also reflect the direction of the struggle between the body's physiological function and the disease cause. The crux of Chinese traditional treatment is the pathologico-physiological reaction of the body, therefore in the management of treatment, "pien-cheng" is of prime significance.

"Pien-cheng" requires the use of the opposition and uniting of

yin-yang and the five elements, their mutual relations, mutual control, and mutual transformations in order to carry on a complete analysis and synthesis of the symptoms and character of the disease together with related circumstances from which a diagnosis of the "symptoms" can be worked out to serve as a basis for the treatment. In analysis of the "symptoms" it is necessary to proceed with an inductive consideration of the complex relations of the eight Principles (yin, yang, piao, li, han, jo, hsu, shih).

1. Here we may include in yin and yang, piao (external) and li (internal), han (cold) and jo (heat), hyperfunction (shih) and hypofunction (hsu). Shih and jo are evidence of yang, while hsu and han are evidence of yin. When the yin is lacking and the yang predominates it is a yang symptom, and when the yin is more abundant than the yang, it is a yin symptom. This is a generalization of the general principles of disease characterization. Therefore, in the Yellow Emperor's Canon of Internal Medicine it is said: "Observe the color and feel the pulse to first differentiate yin and yang."

2. Piao and li reflect the depth and severity of the disease. Piao refer to the outer surface of the body, and li to the internal organs. When the six excesses or "the external evils" invade the body they usually enter the li from the piao. Therefore, in the early stages of infectious diseases symptoms such as fever, chills, headache, body-ache, and plugged or runny nose appear. These are external symptoms. If the disease is not cured, then internal symptoms appear. These include fever, sweating, alternating chills and fever, thirst, constipation and delirium. External symptoms show that the "disease evil is on the outside, and the character of the disease is shallow and light. Internal symptoms show that it has entered the body, and the character of the disease is deep and severe. Sickness from internal wounds is in the li category. Infectious diseases of piao character may enter the body, and those of li character may come to the outside, or both may be present in the same disease. It may also take the form of semi-piao and semi-li symptoms. Internal wounds can also produce external infection, with both internal symptoms and external symptoms present.

3. Han (cold) and jo (heat) reflect the activity of general body functions, with the han reflecting a negative and regressive state, for example, reduction of anabolism, chills, desire for heat, coldness of the limbs, slow pulse, and pale tongue. The jo symptom reflects a positive and hyperfunctioning state, for example, a high metabolic rate, fever, and desire to drink cold water, fever without chills, fever and limb spasms, coma and delirium, violence, convulsions, rapid pulse, and purple tongue. Dysentery can be put in two classes on the basis of its clinical appearance, i.e., heat dysentery, and cold dysentery. In heat dysentery, fever, rapid pulse, purple tongue, and bloody stool appear. This is quite serious. In general, most acute bacillic dysentery and parasitic dysentery belong to the category of heat dysentery. In general there is no fever, slow pulse, and pale tongue in cold dysentery. This type is not so serious. Generally speaking, most chronic dysentery

belongs to the category of cold dysentery.

4. Hsu (hypofunction) and shih (hyperfunction) reflect the ascendancy and diminution of the "right" ("cheng") and the "evil" ("hsieh"). Hsu indicates an insufficiency of "right vital spirit (cheng ch'i)," while shih indicates an excess of "evil vital spirit (hsieh ch'i)." Hsu is a weakening of the body with excessive hemorrhaging, vomiting, sweating, and diarrhea leading to a dehydrated state. Those who have long been ill and have been lacking in nourishment, or whose organs were either damaged or their function reduced, exhibit the symptoms of hsu [deficiency]. A characteristic symptom is fine and feeble pulse, or a rapid and strengthless pulse. Shih is a state in which there is an excess of "sickness evil," and one of its characteristic symptoms is an irregular pulse. In piao-shih [external hyperfunction] the following results: fever and chills, head and body ache, irregular and strong pulse, no sweat when cold evil is present, and sores when the fire element is excessive on the surface. In piao-hsu [external hypofunction] symptoms such as sweating, fear of cold, o-feng [malignant wind?] and irregular and weak pulse occur. Clinically, in li-shih [internal hyperfunction] such symptoms occur as distension pain, indigestion, constipation, death rattle, a deep, strong pulse, and a thick yellow coating on the tongue. In li-hsu [internal hypofunction] the symptoms are fatigue, diarrhea, shortness of breath, lumbago, weakness of the legs, ringing in the ears, spots before the eyes, and loss of will power. Pains tend to hsu and resist shih. Cheng-yin (speaking simply in a low weak voice) is considered hsu, while delirium (speaking confusedly in a rather strong voice) is considered shih.

The origins and developments of diseases are many and varied. External symptoms can move internally and become internal symptoms, and internal may become external symptoms. If the li-piao is hold (han) symptom the li can be a heat (jo) symptom. This is called external-cold internal-heat (piao-han li-jo). If the external (piao) is a heat symptom, the internal (li) could also be a cold symptom. This is called external-heat internal-cold (piao-jo li-han). Piao and li can at the same time be heat symptoms, which is called external and internal heat (piao-li ch'u-jo). If from the upper portion of the body it appears to be a heat symptom, and from the lower part of the body it appears to be a cold symptom, it is called upper-heat lower-cold (shang-jo hsia-han). There are some patients who have long been weak or who have suffered from dysentery in whom there appears a normal hsu and an abnormal shih, and in some cases a true cold and a false heat will appear, or a true heat and a false cold. Shih symptoms can present the appearance of hsu, and hsu can present the appearance of shih. Therefore, clinically it is necessary to analyse the illness according to the four methods of diagnosis, the eight principles, and the pulse, i.e., removing the false and preserving the true. Only then can one arrive at a correct diagnosis and employ effective treatment.

#### IV

Treatment must be closely integrated with "pien-cheng." Therefore it is said that "pien-cheng shih-chih" is a non-separable entity.

The basis of traditional Chinese treatment is "symptomatology" (cheng). Regardless of what the "disease" is, it is only necessary to apply this kind of "treatment" if this kind of "symptom" appears, or that kind of "treatment," if that kind of "symptom" appears. In the same disease different "symptoms" can appear in different geographical regions, different climates, different individuals, and in all stages of its development. Therefore, there is the concept of "same disease, different treatment." Opposed to this it is seen that similar "symptoms" occur in dissimilar "diseases." We have already stated that the "symptoms" are a reflection of the pathological and normal physiological activity of the body, that is, a reflection of the struggle within the body between the normal physiological mechanisms and the disease agent. Chinese traditional medicine implements its "treatment" on the basis of the "symptoms." This could be said to be a treatment based on the study of the development of the disease. Its major and basic principles are as follows;

1. The most basic principle of the pien-cheng shih-chih is "in treating a disease, we must search for its origin." "Origin" (pen) means the cause of the disease, which is the reason the disease is as it is. In treating the disease, we must search for the cause through observation of the symptoms. We must analyse its character, and then bring about its basic solution. For example, there are certain symptoms in a disease for which we must seek the causes that produced these. Sometimes the symptoms are lacking; consequently we must seek to find why these symptoms were not produced. If we discover that the cause of the disease is a "bad" "shih," then our plan is to remove the excess. If we find that the cause is a "cheng" hsu, then our plan should be to supplement the deficiency. We must use the methods of yin, yang, and the five elements, that is, their opposition and unification, mutual relationships, mutual regulation, and mutual transformation, in our treatment. We must get at the crux of the matter, destroy the cause, and bring about a complete and thorough cure. For example, in the early stages of schistosomiasis the difficulties arise, for the most part, from the invasion of the blood parasite with "shih" being characteristic of the majority of the afflicted. The major treatment is a paraciticide. In the late stage, the complaints are ascites and liver and spleen enlargement. The principle treatment then becomes measures for removing the fluid and reducing the enlargement. However, the appearance of the phenomenon of weakness from hsu must be considered. With these considerations in mind the various methods of treatment such as attack (i.e. on the disease) followed by repair, repair followed by attack, or simultaneous attack and repair may be used.

2. "Treat without sickness having occurred" is the principle of early treatment. Generally, in contagious disease, treatment should be initiated while the "noxious influence" is still external and has not



yet penetrated to the internal. To wait until it has penetrated is too late. Moreover, we must be in control of the disease, have foresight, see the minute and realize the obvious. As Chang Chung-ching has said, We should first stimulate the stomach when we see that the liver is diseased, and we know that this may spread from the liver to the stomach." Experience has taught us that if the liver channels are diseased, this very frequently influences the stomach channels. This is the principle of the permutations of the five elements. If this principle is understood, then, when treating diseases of the liver channels, attention should first be given to the stomach channels. In this way the stomach channels will not become diseased and the liver disease will be easy to cure.

3. Determine what is fitting from the place, treat according to the person. Since the human body is controlled and influenced by the environment, i.e., by temperature, climate, food and drink, living quarters, and work, as well as being subject to many other factors, it is logical, therefore, that the same disease under such varied conditions may appear and progress in a number of different manners. Clinical treatment should be differentiated on the basis of these dissimilar conditions. For example, although Japanese B encephalitis is the same in all regions, because of differences in region, climate, and constitution of the patient, different methods of treatment should be employed in accordance with these differences. In the 1955 encephalitis epidemic in Shihchia-ya, the "symptoms" were inclined to heat (jo); symptoms of high fever, fast pulse, purple tongue, and coma appeared in the majority of cases. The principle method of treatment used was that of purifying the fever and dispelling the poison. In the encephalitis epidemic that occurred in the Peiping region during heavy rains in 1956, the "symptoms" tended to dampness -- the symptoms in most cases being high fever, chest congestion, and a thick tongue coating. The principal treatment methods used were those of purifying the fever and transforming the dampness. In the 1958 encephalitis epidemic in Canton the "symptoms" were those of excess heat and concealed dampness. The principal treatment was that of purifying the heat and penetrating the dampness. All these treatments were equally effective.

4. The "p'ien-cheng shih-chih" gives attention to both the primary and the secondary, the chronic and the acute. Only when it is not convenient to proceed this way can the procedure be reversed, as in the case of a distended abdomen. For example, in hepatic sclerosis with ascites one may first treat the secondary and then the primary, that is, the fluid and reduce the swelling of the abdomen, and then after this stimulate the ch'i and relax the liver. If there is no ascites, but there is jaundice, then the primary and the secondary may be treated simultaneously -- relax the liver in treatment of the primary, and dissipate the jaundice in treatment of the secondary.

5. Speaking in general, cold drugs are used with heat symptoms, and heat drugs are used with cold symptoms. With hsu symptoms ch'i stimulating drugs are used, and with shih symptoms a hsia [purgative] drug is used (not simply a purgative). The action of this type of treat-

ment is in opposition to the symptoms, and is therefore called "contrary treatment" (ni-chih). As this is a commonly used treatment it is also known as "regular treatment" (cheng-chih). If, when using a heat drug in cold symptoms, the excess cold resists the heat and is not affected by the heat drug, the heat drug may be given in a cold preparation or some cold drug may be added to it. This is called "heat used for cold." If, in using cold drugs in heat symptoms, the excess heat overcomes the cold, then cold drugs may be given in a hot preparation, or heat drugs may be added to it. This is called "cold used for heat." Again, if there is a ch'i hypofunction with swelling, then this is a symptom of being "plugged up," hence drugs are used to break down this plugging. Should the ch'i become even more deficient, the disease will necessarily become more severe. Then it would be beneficial to use drugs to stimulate the ch'i. The plug would go away of its own accord. This is called "using a plug for a plug." Again, if there is fever and diarrhea, a hsia drug can be used to purify the fever, and the diarrhea will stop of its own accord. This is called "using circulation for circulation." These treatments follow the symptoms and are called "ts'ung chih (following treatment)" and to distinguish them from "cheng-chih" they are, therefore, known as "fan-chih (counter treatment)."

The "p'ien-cheng shih-chih" is an organized whole. Once the symptoms have been clearly distinguished, then a method of treatment must be selected. There are many methods for treatment of which the following eight are the most important. These are generally known as the eight methods.

1. Perspiration Method (han-fa) : This is a method for clearing up the external and is suitable for external symptoms (piao-cheng) of infectious diseases. Since in piao-cheng there is cold, heat, hsu, and shih, the han-fa is divided into two categories.

(a) Hsin-wen chieh-piao fa [Heat Treatment]: This is adapted to the external symptoms of wind and cold infections. Also, in piao-han shih [external cold hypofunction] symptoms fever inducing drugs such as ma-huang-t'ang [Ephedra sinica stapf soup], and ching-fang pai-tu-san [cinnaomum loareinii Nees soup] may be used to clear up the external symptoms. If the cold (han) is from a yin influence, then a yang drug should be used, such as ma-huang [Ephedra sinica stapf], kwei-chih [cinnaomum loareinii Nees], ching-chieh [Nepeta japonica Maxim.] or fang-feng [siler divanictum Benth, et hock. fil] to produce heat. Yang drugs are thus suited for piao-han symptoms.

(b) Hsin-liang chieh-piao fa [cold treatment]: This is suitable for external (piao) symptoms of wind-warmth and wind-heat infections. In piao-jo-shih [external heat hyperfunction] symptoms, when the wind and heat are caused by yang influences, a cooling yin drug may be applied to the skin. Hsin-kan [bitter-sweet] drugs should be used, as sang-ch'ü-yin [mulberry+chrysanthemum drink] or yin-ch'iao-san. Since these drugs are characterized by coldness, they may be used for the external symptoms in the early stages of fever diseases.

In influenza, symptoms such as fever, chills, headache, coughing, rapid and irregular pulse, purple tongue, thirst, and sore throat

appear. These are external symptoms (piao-cheng) of wind-heat (feng-jo). Therefore, the hsin-liang chieh-piao method is suitable for use. Such prescriptions as sang-chu-yin may be used. If there are such external symptoms of wind-cold (feng-han) such as fever, chills, headache, runny nose, irregular, tense pulse, white-coated tongue, and no thirst, then the hsin-wen chieh-piao method should be used. A prescription such as ching-fang pai-tu-san may be used.

2. Vomiting Method (t'u-fa). This is a method of treatment in which vomiting is induced. It is suited for internal symptoms (li-cheng), such as shu-shih [hot+moist] and being clogged up with phlegm. Chao-ti-san [Choumis mels L.] may be used to induce vomiting. In symptoms involving hsu complaints or mental distress, chih-tzu-shih t'ang [Gardenia augusta Merr.+fermented bean soup] may be used to induce vomiting, and in cases of phlegm blockage, li-lu [Bufo gargarzans L.] may be used.

3. Purgative Method (hsia fa): These are methods of treatment in which diarrhea is induced. They are suited for internal symptoms. They are classed as cold purgation (han-hsia), warm purgation (wen-hsia), quick purgation (chi-hsia) and slow purgation (huan-hsia).

(a) Cold purgation: This is suited to internal (li) shih-jo symptoms, and is either classed as quick or slow according to the severity of the "symptoms." In severe symptoms, ta-ch'eng-ch'i-t'ang is used to bring about quick purgation, and in mild symptoms, hsia-ch'eng-ch'i-t'ang or tiao-wei-ch'eng-ch'i-t'ang may be used to bring about slow purgation. If internal shih symptoms of an excess of fire poison (huo-tu) exists, then liang-ko-san [cool-diaphragm-powder] may be used to reduce the heat. If there is extravasated blood with internal symptoms, then t'ao-jen [pruns perica stokes], ch'eng-ch'i i-t'ang, or ti-tang-t'ang may be used to disperse the extravasated blood. If there is phlegm with the internal shih symptoms, then meng-shih [a type of mica]-kun-t'an-wan can be used to break up the phlegm. If there is an accumulation of fluid with the internal shih symptoms, then chou-ch'e-wan can be used to reduce it.

If, following the disease, there is a drying up of the saliva and constipation, the lack of salivation is hsu, and the constipation is shih. Then, the hsu must be treated with saliva stimulating methods, and the shih should be treated by loosening up the intestines. Such drugs as ma-jen [cannabis sativa] and i-wan are suitable.

(b) Heat Purgation Method (wen-hsia-fa): This is suited to internal shih-cold symptoms, such as cold-dampness, cold food accumulated internally, and pain and distension of the abdomen. Such drugs as san-wu-pai-san or pei-chi-wan [wan=pills] may be used to bring about quick purgation. If there is a deep cold with yin constipation, pan-liu-wan [half-sulphur pill] can be used to bring about slow purgation.

4. Consolidated Method (Ho-fa): This method of treatment is used to clear up a number of symptoms. It is adapted to semi-external and semi-internal symptoms. Previously we have said that in external symptoms, the perspiration method may be used, and in internal symptoms the purgation method. In semi-external, semi-internal symptoms,

neither can be used, but the consolidated method can be used, utilizing such drugs as hsiao-ch'ai-hu-t'ang. In using this method, an analysis must be made of the comparative severity of the external and internal symptoms. If it is predominately external, then it is suitable to relieve both and bring out the external symptoms. Ch'ai-hu-k'uei-chih-chih-t'ang can be used. If it is predominantly internal, then it is suitable to treat them both and attack the internal symptoms. Ta-ch'ai-hu-t'ang or hsiao-ch'ai-hu-t'ang may be used with drugs of the mang-hsiao [sulphate of soda] category added.

5. Warmth Method (Wen-fa): There are two types. One is a maintained warmth, with the idea of strengthening with the heat and supplementing nutrients. It is suited for hsu-han symptoms (see "Nourishment Method"). The other is the use of higher degrees of heat adapted to yang-hsu-li-han symptoms. In piao-han symptoms, the hsin-wen chieh-piao method (see "perspiration method") may be used. Li-han may also be dealt with by this method. When limb spasms appear in li-han, drugs such as ssu-ni t'ang may be used. When diarrhea occurs in li-han, li-chung-t'ang may be used.

6. Ch'ing-fa: This is a method for clearing fever by purging and is suited for use in heat symptoms (jo-cheng). In jo-cheng there are external, internal, hsu, shih, ch'i and blood classifications. In piao-jo, hsin-liang chieh-piao may be used (see perspiration method). In li-shih-jo symptoms, cold purgation may be used (see purgation methods). If the heat (jo) is in the "ch'i factor" in li-shih-jo symptoms, the heat influence has not become joined, and there is no constipation, then k'u-han reduction of fever by purgation is suitable, and drugs such as huang-lien-chieh-tu-t'ang may be used. If the heat is in the "blood factor," and symptoms of hemorrhage occur such as vomiting of blood and nosebleed, then it is suitable to cool the blood and clear the fever with such drugs as hsi-chiao-ti-huang-t'ang [antidotal soup of coptic chirensis French.]. If there is a yin deficiency and internal fever, then cooling and nourishment of the yin is suitable to bring about a balance between yin and yang. The fever can be alleviated with liu-wei-ti-huang-t'ang [six-flavored Rehmannia glutinosa; Libesch.] (see Nourishment Method).

7. Hsiao-fa: This is a dispersal treatment method. This method can be used in cases where such pathological products as phlegm, food, bowel obstruction, fluid and extravasated blood occur in the organs, channels, and flesh of the body. For example, pao-ho-wan may be used to aid digestion, and erh-ch'en-t'ang to relieve phlegm. Wu-chin-san may be used to relieve fluid accumulation, and in removing extravasated blood ta-huang [Rheum afflinate Baill. (Fam. ?)]-ch'ung-wan. Intestinal accumulations may be relieved with Mu-hsiang-pin-lang-wan [Inula Helenium=betel nut pill].

8. Pu-fa (Nourishment Method): This is a method of treatment involving nourishment and strengthening. It is suited for deficiency (hsu) symptoms. Since there are the categories of ch'i deficiency, blood deficiency, yin deficiency, yang deficiency, stomach deficiency,

and kidney deficiency, as well as such states as suppressed shih, false deficiency and true shih, these must be carefully distinguished. Here are a few examples.

In ch'i deficiency with considerable cold, heat nourishment is suitable, using ssu-chün-tzu-t'ang. In ch'i deficiency with considerable heat, balance nourishment (p'ing-pu) is suitable, using cheng-mai-san. In external ch'i deficiency with perspiration, strengthening the external (ku piao) is suitable, using yü-p'ing-feng-san. In internal ch'i deficiency nourishment of the ch'i and elevating of the yang is suitable, using pu-chung i-ch'i-t'ang. In blood deficiency resulting from a decline in ch'i, it is suitable to nourish the ch'i in order to produce the blood using tang-kuei-pu-hsueh-t'ang. In blood deficiency the blood should be nourished using ssu-wu-t'ang. If both ch'i and blood are deficient, then both should be nourished using pa-chen-t'ang. If it is predominantly cold (han) shih-ch'uan-shih-pu-t'ang may be used, and if it is predominantly hot (jo) jen-ts'an [Panax ginseng]-yang-jung-t'ang may be used. If the ch'i and blood are deficient and there is cold (han), then both should receive warmth nourishment with pao-yuan-t'ang. In ch'i and blood deficiency with fever (jo), the ch'i and blood should be supplemented to a balanced level. Liang-i-kao may be used. If there is great deficiency in the constitution (yuan-ch'i), or interrupted pulse, then the constitution should be greatly nourished. Tu-ts'an-t'ang may be used. With violent loss of yin, yang, blood, and ch'i, the yang should be remedied using liu-wei-ti-huang-wen. With kidney yang deficiency, the kidney yang should be supplemented with shen-ch'i-wan. If there is a yin deficiency in the lungs, then the lungs and yin should be nourished and supplemented, using pu-fei-a-chiao-san. If there is a yin deficiency in the stomach and lung, then the stomach should be restored and the lungs nourished, using ch'lung-yü-kao. With heart and stomach deficiency, nourish the heart and restore the stomach with kuei-p'i-t'ang. With heart deficiency, one should nourish the heart and quiet the nerves (shen) using t'ien-wang-pu-hsin-tan. With a stomach yang deficiency, warm the innards (chung) and restore the stomach using li-chung-t'ang.

In using the pu-fa (nourishment method) it is still necessary to consider the situation from the viewpoint of the opposition of yin and yang. For example, in yin deficiency with internal heat, the yin is nourished to get rid of the heat. In yang deficiency with external cold, the cold is eliminated by the nourishing of yang. In ch'i deficiency the ch'i is nourished, and in blood deficiency, the blood is nourished, the ch'i being yang, and the blood being yin. But, as the ch'i is the director of the blood, nourishment of the ch'i is also required in addition to nourishment of the blood under conditions of blood deficiency and decline in the ch'i. At the same time, treatment should be managed on the basis of the permutation theory of the five primary elements, using, in general, the principle of "in deficiency (hsü) nourish (pu) its mother." For example, the stomach is earth (t'u), and the lungs are metal (chin). Earth can produce metal. Therefore, in a lung disease

which has a deficiency character, it is ordinarily necessary to nourish the stomach. Again, the stomach is earth (t'u), and the liver is wood (mu). Wood can destroy earth. Therefore, in kidney disease, stomach damage must be prevented (see above). Again, the heart is fire (huo), and the kidney is water (shui). If kidney water is insufficient, then the heart fire (huo) flames up, and this is manifested in insomnia and heart palpitation, and nocturnal emissions. Water can destroy fire, therefore, the heart fire may be alleviated by nourishment of the kidney yang.

What has been related above are simple deficiency (hsu) and nourishing (pu) methods. However, clinically, symptoms of deficiency (hsu) and excess (shih) are frequently seen together, and in this case treatment consists both of reduction (hsiao) and nourishment (pu). For example, in ch'i deficiency with phlegm, the ch'i may be nourished and the phlegm reduced with liu-ch'ün-tzu-t'ang. Where there is a stomach deficiency with accumulation of food, the stomach may be restored and the food diminished with chi-shu-wan. Again, when people with body weakness suffer from infectious diseases, with deficiency symptoms showing external noxious influences (hsieh), the normal (cheng) should be supported and the noxious influences removed by using ts'an-lao-yin.

In the eight methods of treatment outlined above, only a few concrete examples of drug use have been given. In actual practice, however, drugs should be closely integrated with "pien-cheng" when the methods mentioned are applied.

## V

The "pien-cheng shih-chih" is a principle developed in recent years from clinical practices. Its leading thought is the theory of yin and yang, and the five elements. Our national medicine has used this theory to explain the relationship between organisms and the environment. With the physiological theory of the mutual opposition and control of organs and functions, we have worked out the theory that disease is a process in which the relationship between body and environment is destroyed. In addition, we have established theories on the process of struggle between the disease cause and the bodily defenses, and a theory of internal and external disease causes. These have all been constructed on the basis of the theory of yin-yang and the five elements and their relationship to normal functions (sheng-li) and pathological functions (ping-li sheng-li), and disease causes. From the basis of the symptoms, we distinguish and elucidate the state of pathological function in the body, and utilize various methods of treatment to regulate it, bring about a recovery of internal balance, and overcome the invasion of the disease cause, and in this way finally overcome the disease and arrive at a cure. These are the fundamentals of the "pien-cheng shih-chih."

"Cheng" is the distinguishing of the patient's pathological reaction -- the object of treatment. In the management of the "pien-

cheng shih-chih," similar symptoms are treated in a similar manner, but if the symptoms change, the treatment follows suit. Therefore, the "pien-cheng shih-chih" has firm principles, but it is also adaptable. Consequently it has universal clinical significance.

Ever since the establishment of our Nation, especially in the last three to five years, the practical value of the principle of "pien-cheng shih-chih" has been further demonstrated because of the Party's policy on Chinese traditional medicine and because of the close cooperation of Chinese and Occidental medicine. In the future, more research using modern science is needed to further develop the principle of "pien-cheng shih-chih" in order to obtain even greater accomplishments in the work of preserving the health of the people.

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## FEELING THE PULSE IN CHINESE TRADITIONAL MEDICINE

[Following is a translation of an article by the Research Institutes of Chinese Traditional Medicine, from Ch'ing-chu Chien-kuo Shih-chou-nien I-hsueh K'o-hsueh Ch'eng-chiu Lun-wen Chi, Volume 1, Peiping, December 1959, pp. 311-315.]

### I

Feeling of the pulse is one of the diagnostic methods of Chinese traditional medicine. Chinese traditional diagnosis begins with a consideration of the whole body. It analyses all aspects, and not only seeks to determine what the disease is, but seeks to distinguish the given "symptoms" ("cheng") at any given time during the course of the disease. These are what serve as the basis for treatment. The diagnostic methods employed are of a synthetic character, the four principal ones being observing, listening, asking, and feeling (i.e. the pulse). Observation consists of examining the patient's expression and color, bearing, and tongue. Listening is taking soundings from the patient's body. Asking is the enquiry into the patient's pains and the onset of the disease, and so on. Feeling is the taking of the pulse. We will now concentrate on a discussion of feeling the pulse.

The origin of diagnosis by feeling the pulse occurred very early. Ancient doctors had already discovered the relationship between pulse beat, heart, and general body circulation of the blood. For example, it is said in the Canon of Internal Medicine of the Yellow Emperor (Huang-ti Nei-ching) that, "The vessels connect with the heart", and, "The residence of the blood is the vessels". This indicates the importance of feeling the pulse in general diagnosis.

Chang Chung-ching, in the Eastern Han Period, inherited and expanded the traditional experiences of the "Pien-cheng Shih-chih" [treatment based on the discrimination of symptoms] distinguishing the various types of chronic and acute diseases and carrying out treatment on the basis of the character of the pulse and symptoms. Finally, King Ch'ao of Chin collected and summarized the experiences of his predecessors in diagnosis by feeling the pulse, and wrote a text on pulse study, the Canon on the Pulse (Mo Ching). This has become an important document on pulse diagnosis for the later generations of Chinese doctors.

## II

Diagnosis by feeling the pulse occupies an important place in Chinese traditional clinical medicine. This is because the principle of traditional Chinese therapeutics is the "pien-cheng shih-chih", which is to say, that in the course of treatment, one must make a "discrimination of symptoms" ("pien cheng"). The basis of this "pien-cheng" is the patient's general body reactions and the chronology of the onset of the disease. Seen from the viewpoint of Chinese traditional medical theory, the character of the pulse is a major reflection of the struggle between the body's physiological function and the disease agent. Aside from determinations on the basis of the patient's appearance, tongue coating, bodily symptoms and the course of the disease, it is also necessary to determine the character of the pulse in order to diagnose the nature of the disease, and to decide upon the method of treatment and the course of the drug treatment. For example, in "typhus" (shang-han), there appear symptoms of fever, chills, and headache. If the pulse is irregular and tense (fu chin), there is an external cold noxious influence present, and ma-huang-t'ang [Ephedra vulgaris soup] should be used. If the pulse is irregular and slow, there is an external noxious wind influence present, and kuei-chih-t'ang [cinnaomum loureirii Nees. soup] should be used. If it is a "fever disease" ("wen-ping") with symptoms of fever, thirst, perspiration, and head and the pulse is irregular, high and strong, these are excess heat symptoms (shih-je cheng), and Pai-hu-t'ang [White tiger soup] should be used. If the pulse is irregular, fast, and weak, it is a heat wound to the constitution (je-shang yuan-ch'i) and Pai-hu-t'ang with ginseng added should be used. Pai-hu-t'ang is a cooling prescription, and can cause the heat to come to the surface. If the pulse is thready and fine, or sinking and weak, then the preparation still should be used even if it is contra-indicated in such heat symptoms as thirst and perspiration. Such examples as these are numerous in Chang Chung-ching's Shang-Han Lun and later medical documents, and we have offered these examples only to demonstrate the great significance of feeling the pulse in clinical work.

In summary, Chinese traditional pulse feeling, aside from supplementing other diagnostic techniques in determining what a given disease is, has as its most important characteristic the determining of the strength and weakness of the constitution, increase or decline of the ch'i (vital force) and the blood, the presence of noxious ch'i externally or internally, where the organ the disease is located, whether the nature of the disease is cold or heat, and whether the disease is progressing or regressing, in accordance with the development of the disease. This serves as the basis for the therapeutic measures used and the prescriptions selected. At the same time, one can deduce from feeling the pulse whether

the prognosis is favorable or not.

### III

The locations for feeling the pulse have differed from ancient to modern times. In earliest times, the arteries in nine regions of the body were selected. There are detailed records of these in the Huang-ti Nei-Ching Su-wen discussion on the three divisions and nine regions (San-pu Chiu-hou lun). First, the body was divided into three divisions, the upper, middle, and lower, and each division was divided into three regions (hou)--heaven (t'ien), earth (ti), and man (jen)--together making up the three divisions (pu) and nine regions (hou). The upper division (sheng-pu) was located on the head. The t'ien position was made up of the frontal arteries. The ti position was the cheek arteries, and the jen position was the arteries in front of the ears. The three regions of the upper division are used primarily in examining changes involving the head, mouth, teeth, heart and eyes. The middle division (chung-pu) is the hand. The t'ien position is the radial artery posterior to the palm. The ti position is the wrist-palm lateral branch of the radial artery between the thumb and index finger. The jen position is the ulnar artery posterior to the palm and at the end of the pointed bone of the wrist. The three regions of the middle division are of use in investigating changes involving the heart, lungs, and chest. The lower division (hsia-pu) is the leg. The t'ien position is the superficial branches of the femoral artery near the genital area. The ti position is the artery on the inner surface of the heel and above the calcaneus. The jen position is where the femoral artery passes over the knee. The lower division regions are used in diagnosing changes involving the liver, kidney and stomach. These positions are quite numerous and complicated to use. In the Huang-ti Nei-ching Su-wen discussion on arteries and veins, it was pointed out that the ts'un-k'ou (the radial arteries of the carpus) could be used in determining whether the patient would survive or live. This is much simpler. Beginning with the Nan-Ching, the ts'un-k'ou was selected for diagnosis. In the Shang-han Lun, in addition to the ts'un-k'ou, sometimes the fu-yang-mo (the artery of the anterior channel of the back-foot system in the shoe-lace region) and the shao-yin-mo (the posterior channel artery on the inner surface of the calcaneus) are selected, as well as the jen-yang-mo (the external carotid artery). Now, Chinese medicine uses the ts'un-k'ou position in diagnosing by feeling the pulse. In general, the fu-yang, shao-yin, and jen-yang are rarely used.

The Nan-ching brings up the following question: "As all the 12 channels have arteries in them, how can you select only the ts'un-k'ou to determine the life and death of the organs?" The answer is: "The

ts'un-k'ou joins with the other vessels, and is the vessel of the shou-t'ai-yin." It is also said: "The ts'un-k'ou is the beginning and end of the 11 organs, and thus we select the ts'un-k'ou." According to the principles of Chinese medicine, the shou-t'ai-yin is part of the lung channel. The lung controls the ch'i (vital force) of the body and is visited by the hundred vessels and is that on which the 11 organs rely. Therefore the ts'un-k'ou lung channel artery is used to diagnose the changes involving the function of the 11 organs, and in deducing the outcome of the disease.

The ts'un-k'ou is also called the ch'i-k'ou or the mo-k'ou. This is the radial artery running transversely from the back of the palm and running up a distance of an ancient ch'ih, one ts'un, and nine fen (approximately 44 mm.). The Nan-ching (same as the Wang-Shu and Mo-Ching) divides the ts'un-k'ou into three divisions, the ts'un, kuan, and ch'ih. In addition, these three are distinguished for purposes of diagnosis from the standpoint of their coordination with the 11 organs and in which side of the body they exist. The left ts'un vessel controls the heart and small intestine, the left kuan, the kidney and gall bladder, and the left ch'ih controls the kidney and bladder. The right ts'un controls the lungs and large intestine; the right kuan, the stomach; and the ch'ih, the ming-men (the womb) and the san-chiao. In general, the ts'un vessels control the upper organs (chang-chiao), the kuan, the intermediate organs (chung-chiao), and the ch'ih, the lower organs (hsia-chiao). At present, although there has not been a complete explanation of the principles whereby diseases may be diagnosed by feeling the pulse in one artery, this reliance on the ts'un, kuan, and ch'ih positions of the radial artery for diagnosis has great practical significance. There must be close cooperation between Chinese and occidental medicine in the advancement of research using modern scientific methods.

#### IV

In the Wang-Shu and Mo-Ching there have been recorded 24 types of pulse characteristics. After this, there was gradual development, and now there are more than 32 kinds. Among these, the pulse is divided into light (fu) and heavy (ch'en) according to its depth, and the pulse rate is classed as either fast or slow. Breathing is classed as great or fine, and in terms of its length, it is classed as long or short. The movement is classed as either smooth or uneven. Tenseness is classed as either thready or dilatory (ju), and strength is classed as excessive (shih) or deficient (hsü). For rhythm, there is the chieh pulse, the ts'u pulse, and the tai pulse. These are all pulses that occur in sickness. The symptoms represent the phenomena of the generation or decline in yin and yang; consequently, they are reflected in the character of the pulse.

Therefore, the pulse as seen in sickness can also be classed as yin or yang. The above-mentioned examples are those in which there is a manifestation of the generation or decline in yin and yang. For example, the light (fu) pulse is considered yang, the heavy, yin. The fast pulse is yang, the slow, yin. The great is yang, and the fine is yin. The long is yang, and the short is yin. The remainder also follow this pattern.

The normal person's pulse is characterized by having four counts to each inspiration-expiration and by being neither fast nor slow, neither light nor heavy, neither great nor small, neither long nor short. It is regular and mild. This is the normal standard. However, the character of the pulse may differ according to climate, environment, livelihood, and individual constitution. For example, in the spring, the normal pulse tends to be thready, in the summer, full, but light in the fall, and deep in the winter. After working, the pulse is rapid, and is slow while resting. People with quick temperament have fast thready pulses, and people of a more peaceful disposition have slower pulses. The pulse in the corpulent is deep; in the thin, light. Therefore, when diagnosing the pulse, one must decide whether the pulse is normal or abnormal on the basis of the concrete situation of the patient.

The types of abnormal pulse are numerous and difficult to determine clinically. Therefore, we may make use of the following eight categories as a general outline from which to draw our conclusions: light (fu), heavy (ch'en), slow (ch'ih), fast (shu), great (ta), fine (hsi), long (ch'ang), and short (tuan).

The light (fu) is a light pulse, and when it occurs, it indicates that the disease is external (piao). If it is light but strong, it is a full pulse (hung-mo), and indicates a fire or fever symptoms. If it is light but weak, it is a deficient pulse (hsü-mo), indicating a deficiency of ch'i. If it is light and very deficient (hsü), it is a scattered pulse (san-mo), indicating a separation of ch'i and blood. If it is light like the emptiness inside the tubed leaves of an onion, it is a "hollow onion" pulse (kung-mo). This is a symptom of loss of blood. If it is light like the beating on a drum, it is the anxious pulse (ko-mo); it is a symptom of outer strength, medium deficiency, and of the failure of yin and yang to join. If it is light and delicately fine, it is the dilatory pulse (jo-mo), indicating a ch'i deficiency and a damp influence.

The heavy pulse (ch'en) indicates that the sickness is internal (li). If it is heavy and penetrates to the bones, it is the hidden pulse (fu-mo), indicating a concealed noxious influence that is deep and closed off. If it is heavy and hard, it is the firm pulse (lao-mo), and is a symptom of internal cold excess (li-han-shih). If it is heavy but fine, it is the weak pulse (jo-mo) and indicates a blood deficiency (hsueh-hstü).

If there are two or three beats for each respiration, it is a slow pulse. The slow pulse indicates cold (han). If it is slow but steady, it is the "tardy" (ch'ih) pulse, indicating that the blood is diminished and obstructed. If it is slow with occasional pauses, it is the chieh-mo, indicating an obstruction of the ch'i. If it is slow with pauses of a definite number, it is the tai-mo, indicating a mortal ailment of the ch'i.

If there are five or more beats to each inspiration and expiration, it is the fast pulse (shu-mo). The fast pulse indicates heat (je). If it is fast and forced, it is the tense pulse (chin-mo), dominated by cold (han) and pain. If it is rapid with occasional pauses, it is the ts'u-mo, indicating symptoms of heat and inner involvement of yang. Rapid movement in the kuan region is the tung-mo, characterized by alarm and disordered ch'i, and pain from phlegm.

The fine pulse (hsi-mo) is fine and small, like a silken thread, showing general deficiency with symptoms of the disruption of yin, yang, and ch'i. If it is fine and light, it is the dilatory pulse (ju-mo) with a ch'i deficiency and dampness sickness (see above). If it is fine and heavy, it is the weak pulse (jo-mo), indicating a blood deficiency.

The great pulse (ta-mo) indicates an excess of noxious influences. If it is great and flowing rapidly, it is the full pulse (hung-mo), indicating excess of fire and heat (see above). If it is great and firm, it is the excess pulse (shih-mo), with an excess of noxious influences.

The short pulse, when felt, does not reach its original position, and is not full, indicating a deficiency and weakness of the constitution (yüan-ch'i). The long pulse feels, under the finger, as if there were a long rod being held. If you lift it, and it is longer than its original position, then this indicates that the nerves are strong and that the ch'i is healthy. If you press it and it does not move and is like a bowstring, that is a thready pulse, and these symptoms indicate that there is deficiency, but the liver is active.

The pulse seen in sickness is a manifestation of either excesses or deficiencies in the generation and decline of yin and yang. If the yin and yang lose their regularity, then the blood and ch'i become disordered, and the "strange pulse" ("kuai-mo") can also appear. The "strange pulse" is an irregular, abnormal pulse, with no rhythm. It indicates impending death.

If the ch'i and blood are not in harmony, the pulse acts as if it could not contain itself, and is slow. This is the spirit of the pulse (mo-shen). The mo-shen is also called the stomach ch'i (wei-ch'i). If the pulse has a mo-shen, it then has a wei-ch'i, although there is a pulse of sickness; consequently an accurate prognosis can still be made. If the pulse has no spirit (shen), then there is no wei-ch'i, and it belongs to the category of a death pulse. At the same time, the pulse has a root

(ken), and speaking in terms of light (fu) and heavy (ch'en), then the ch'en is the root. Speaking in terms of the three divisions (san-pu), then the ch'ih is the root. If the pulse has no root, and the deep regions are without pulse, or if the ch'ih is without a pulse, then these are symptoms of death.

Sometimes the pulse and the other symptoms are contradictory. This helps to explain why there is a "true and false" of the symptoms and a "true and false" of the pulse, e.g. great excess (ta-shih) showing a condition of weakness, and a deficiency with symptoms of excess fever without a fast pulse, and cold without a slow pulse, all indicating that there must be a combination of the pulse and symptoms. There are symptoms of deficiency with excess pulse, and symptoms of excess with deficient pulse. There are yin symptoms with a yang pulse, and yang symptoms with a yin pulse. If symptoms of excess and a deficient pulse are seen, they are false excess symptoms; consequently one should deal with the pulse and forget the symptoms. If it is a case of excess pulse and symptoms of deficiency, it is a false pulse excess, and the symptoms should be dealt with rather than the pulse. Again, if there is external heat but a weak pulse, it must be deficient heat. If the abdomen is distended but the pulse is fine, it must be a swelling resulting from a deficiency, and the symptoms should be forgotten and the pulse followed. If there is no fever and the pulse is full and fast, it cannot be a noxious influence of fire. If there is no swelling, but the pulse is thready and strong, it cannot be an internal excess, and symptoms should be dealt with, and not the pulse. Treatment based on pulse and symptoms should be combined and closely used with the techniques of observing, listening, and asking.

## V

Since the establishment of the Chinese People's Republic, under the leadership of the Chinese Communist Party, Chinese medicine has been found to have great utility in the field of disease prevention. Moreover, scientific work has been carried on in cooperation with clinical practice, with many accomplishments having been attained. In the field of diagnostics, in addition to the study of glossoscopy, research has been carried out in regard to the character of the pulse. In the past few years, many clinical case reports have shown the importance of feeling the pulse in carrying out treatment according to the discrimination of symptoms (p'ien-cheng shih-chih). Research personnel of the Research Institutes of Chinese Traditional Medicine have reported (1958) that during the treatment of Japanese B-encephalitis, pulse taking was of great significance in the discrimination of symptoms and the use of drugs. For example, if the patient had a fever, did not perspire, and had a yellow tongue coating,



with a thready, fast pulse, then it indicated that there was a noxious heat (shu) influence collected internally. If the pulse is fast and irregular, and there are symptoms of phlegm and damp obstruction, then methods of heat purification and opening of the passage should be used. It can be seen that the methods of treatment are dissimilar when the same disease has identical symptoms but different types of pulse. Again, as the Hospital of the Research Institutes of Chinese Traditional Medicine reported in 1958, treatment methods of vitalizing the blood, mobilizing the ch'i, expanding the channels, and connecting the vessels were used on 90 cases of chronic rheumatic arthritis where symptoms of blood deficiency were indicated because the pulse was thready, irregular and slow, and there was no tongue coating. If the pulse was dilatory and irregular, and the tongue coating yellow and glossy, then it was a case of wind and dampness injuring the vessels with a stoppage of the ch'i and extravasation of the blood. Besides vitalizing the blood and mobilizing the ch'i, and using methods of expanding and connecting the vessels and channels, it is necessary to use substances to remove the wind and benefit the dampness. In recent years, observations on clinical treatment have shown that the character of the pulse reliably reflects the physiological and pathological changes occurring in the body. For example, on the basis of incomplete statistics, in 1,895 cases of appendicitis treated throughout the country in the last few years, the pulse was recorded in 265 cases, of which 118 cases had thready, rapid pulses. During the course of treatment the pulse changed from thready and rapid to fine and slow as the symptoms of abdominal pain decreased, the body temperature declined, and the white blood corpuscle count lowered, and the tongue coating changed from a thick and glossy state to a thinner coating. If the abdominal pain diminishes, and the temperature and white blood corpuscle count decrease, but the tongue and pulse symptoms do not change, the symptoms of the disease could still recur, and the leucocyte titre and body temperature could rise again. It was not until the tongue had returned to normal and the pulse had become level and slow that a cure could be recognized as effective. Therefore the tongue and pulse reflect from beginning to end the changes occurring in the disease during the entire therapeutic process. Some modern scientific instruments have also been used in research on the pulse. For example, in 1953, the Peiping Chinese Medical School of the Ministry of Health used a sphygmometer in studying the pulse of patients with hypertension. In hypertension, the thready pulse was most frequent. From the pulse wave graph, it could be seen that the thready pulse was markedly different from that of normal persons. If the peak and base line were connected with a straight line, the peak often fell to the right and above it in the thready pulse, while the level pulse (normal) fell to the left and below it. The wave was also much greater at its mid-point in the thready than

in the normal pulse. The Research Institutes of Chinese Traditional Medicine also used an automatic voltage controlled sphygmograph and recorded the pulse for 100 cases of hypertension. The pulse was thready in 97% of the cases, and five special features of the thready pulse could be made out. 1. The peak of the main wave was blunt. 2. The post-peak slope fell off slowly. 3. There was a small pathological wave in the after-slope. 4. The base line was broader than in the normal pulse. 5. There was a yin wave below the base line following the after-slope. These experiments all explain the special characteristics of the thready pulse, thus demonstrating that the feeling of the pulse has a scientific basis. Recently, doctors of the Department of Internal Medicine of the Tientsin First Central Hospital (1959) in their studies of Chinese medicine, have realized the important position occupied by pulse diagnosis in our nation's medicine. They have conducted theoretical research on the pulse, and in order to further their research they have formed cells with Chinese traditional doctors, using the sphygmograph on 100 cases. At the same time, they have found 21 types of pulse through this pulse taking research and thereby have furthered the explanation of the characteristics of the pulse in disease.

Although this scientific research in feeling of the pulse has just gotten underway, it has already shown the scientific nature of our national medicine and the correctness of the Party policy on Chinese traditional medicine.

## VI

In clinical treatment, it is first necessary to make a diagnosis, and feeling the pulse is one of the diagnostic techniques of Chinese traditional medicine. Therefore, it is also an important aspect in the practice of "pien-cheng shih-chih."

The major objective of feeling the pulse is observing the character of the pulse, and also taking symptoms into consideration. A decision is reached on the disease's nature, i.e. as it is determined whether, in the last analysis, it is yin, yang, cold, heat, deficiency (hsu), excess (shih), the external (piao), or internal (li) that will serve as the basis for treatment. At the same time, a prognosis may be made on the basis of the pulse.

Pulse diagnosis of diseases is definitely correct. However, it must be closely coordinated with the diagnostic techniques of observing, listening, and asking. If the character of the pulse and the general symptoms are considered to be mutually related, then a complete and profounder understanding can be reached as to the form of the disease, its nature determined, and concrete treatment instituted.

All types of pulse reflect to a definite degree the pathologico-physiological changes occurring in the entire body and not just the pathological changes occurring in the cardio-vascular system. If we can combine Chinese traditional medical experiences and theory with the application of modern scientific methods in the advancement of systematic and penetrating research, we will be making a contribution to modern medical science.

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